DOCUMENT RESUME

ED 112 203 CE 005 225

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TITLE Numerical Control Associated Jobs: State-Wide Survey.
INSTITUTION Oklahoma State Dept. of Vocational and Technical Education, Stillwater. Div. of Research, Planning, and Evaluation.
SPONS AGENCY Bureau of Occupational and Adult Education (DHEW/OE), Washington, D.C.
REPORT NO VT-102-193
PUB DATE Jun 75
NOTE 10p.

EDRS PRICE MF-$0.76 HC-$1.58 Plus Postage
DESCRIPTORS Demand Occupations; Employment Level; High School Graduates; Job Training; Machinists; *Numerical Control; *Occupational Surveys; *State Surveys
IDENTIFIERS Oklahoma

ABSTRACT

In order to get a better view of the demand for secondary trained numerical control personnel and upgraded adult machinists, a questionnaire was sent to machine shops throughout the State of Oklahoma. The questionnaire was designed to show the present level of employment of numerical control personnel, the anticipated use of retraining facilities, and the anticipated one-year and two-year demand levels. The results of this study were used to determine the feasibility of purchasing numerical control machinists' tools for use in the training of machinists. It was found that the level of training required did not justify the purchase of numerical control equipment at this time. (Author/VA)

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Numerical Control Associated Jobs State-Wide Survey

(VT 102 193)

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June 1975

STATE DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION /STILLWATER, OKLAHOMA
DIVISION OF RESEARCH, PLANNING, AND EVALUATION

ACKNOWLEDGMENTS

This investigation reports the results of a survey conducted by staff of the Oklahoma State Department of Vocational and Technical Education, Division of Research, Planning and Evaluation.

Appreciation is extended to MARSUCO, Tulsa for providing a list of firms that are using numerical controlled equipment. Also to Dr. Roy Ayres, Hallard Randell, Jim Wilson, Michael D. Hart, and Dan Matlock for their efforts in providing expert assistance in this study.

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NUMERICAL CONTROL ASSOCIATED JOBS
STATE-WIDE SURVEY

Introduction

In order to get a better view of the demand for secondary trained numerical control personnel and upgraded adult machinist, a questionnaire was sent to machine shops throughout the State. The questionnaire was designed to show the present level of employment of numerical control personnel, the anticipated one-year and two-year demand levels and the anticipated use of retraining facilities, if they were available. The results of this study will be used to determine the feasibility of purchasing numerical control machinists' tools for use in the training of machinists.

The Population

The employer population was composed of Oklahoma firms included in the Standard Industrial Classification Major Group 35, manufacturing machinery and equipment. MARSUCO, a Tulsa firm selling numerical control machinist equipment, also provided a list of firms known to use numerical control equipment. These 482 firms were contacted by mail with an explanatory cover letter.

Summary of Findings

There were 117 of the 482 firms contacted that returned the questionnaires. However, 75 of these 117 firms furnished no data germane to this study because they were not using, nor planned to use, numerical control equipment. That left a sample of 42 firms which provided usable data.

The survey (see Appendix A for complete results) showed that the greatest number of persons are presently employed as Numerical Control Machine Tool Operators, 297, as compared to 44 Numerical Control Programmers, 12 Tool Setters, 4 Numerical Control Draftsmen, and 21 other titles; prominent among the others were conventional machinists, operators, and standard machine tool operators.

The greatest expected increases came in the Numerical Control Machine Tool Operator category. This category should show an increase of 107 employees or 36% over a two-year period. Presently, there are 11 positions for Numerical Control Machine Tool Operator which have remained unfilled for 30 days or more. Within the next two years, numerical control jobs as a whole should increase by 136 (or 36%) to 514. Numerical Control Machine Tool Operators account for 72% of the total increase in demand for all numerical control associated jobs over the next two years.

The second major area of the questionnaire consisted of positions which the employer would fill with appropriately-trained high school graduates and/or upgraded adults. Currently there are 71 positions available which could be filled by high school trained personnel and 63 positions for upgraded adults. Again, Numerical Control Machine Tool Operator was the most prominently mentioned area with 49 positions for high school trained personnel and 41 positions for upgraded adults. Due to the "and/or" wording of this question it is difficult to discern the total number of positions available. However, the conclusions tend to be the same as regards the dominance of the Numerical Control Machine Tool Operator in the occupational areas.

The third area of the questionnaire was an attempt to determine anticipated use by the employer of this equipment and the facilities of the State Department of Vocational and Technical Education in upgrading his employees. Eighteen of the responding employers indicated that they would want to use the upgrading program for 76 of their employees.

Recommendation

The survey has shown that the greatest area of demand is for Numerical Control Machine Tool Operators. In order to determine the level of training required for a Numerical Control Machine Tool Operator, Dr. Roy Ayres, State Supervisor of Trades and Industrial Education, Hallard Randell, State Supervisor of Equipment Pool, and Dr. J. B. Morton, Division of Research, Planning, and Evaluation, visited firms in the Oklahoma City area using numerical control equipment. It was their determination that the level of training required for Numerical Control Machine Tool Operator does not, at this time, justify purchase of the numerical control equipment.

APPENDIX A

OKLAHOMA STATE DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION

Numerical Control Associated Jobs
State-wide Survey

I. Please fill out the columns below for the stated occupations.

Occupation	Number Employed Excluding Trainees Feb. 15, 1975	Number Expected to be Employed in		Number of Vacancies Unfilled 30 Days or More
		Feb. 1976	Feb. 1977	
* N.C. Programmer	44	52	57	5
N.C. Machine Tool Operator	297	361	404	11
N.C. Drafting	4	6	10	1
Tool Setters	12	18	22	3
Others (specify)	21	25	25	1

I. Please list below the N.C. Machinist occupations you now have for which you would employ appropriately trained high school graduates and/or upgraded adults.

Occupation	Number of H. S. Trained Personnel Would Employ	Number of Upgraded Adults Would Employ
N.C. Programmer	6	6
N.C. Machine Tool Operator	49	41
N.C. Drafting	1	1
Tool Setters	3	0
Others (specify)	12	15

II. If the State Department of Vocational-Technical Education became involved in N.C. training, would you want to utilize our facilities to upgrade your employees? Please check one of the following: yes 18 no 20. If yes, how many people per year? 76.

* N.C. = Numerical Control

February 26, 1975

Dear Sir:

The Oklahoma State Department of Vocational and Technical Education is committed to providing training for students in occupations where there are job opportunities. We are concerned, therefore, with updating our training programs to reflect the current needs of employers. There are presently a number of training programs in both local high schools and area vocational-technical schools which prepare students to enter the curriculum and training program a n.c. (numerical control) continuous path milling machine to meet the needs of employers.

The intent of this survey is to find out from employers what n.c. (numerical control) associated jobs can be appropriately filled by high school graduates and/or upgraded adults.

Would you please assist us by completing the attached form and returning it by March 21? A self-addressed, stamped envelope is enclosed for your convenience.

Sincerely,

Bill Stevenson, Assistant State Director
Head, Division of Research, Planning
and Evaluation

Enclosures

WWS/WCJ-05/8

OKLAHOMA STATE DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION

Numerical Control Associated Jobs State Wide Survey

Please fill out the columns below for the stated occupations.

Occupation	Number Employed Excluding Trainees Feb. 15, 1975	Number Expected to be Employed in Feb. 1976	Number Expected to be Employed in Feb. 1977	Number of Vacancies Unfilled 30 Days or More
* N.C. Programmer				
N.C. Machine Tool Operator				
N.C. Drafting				
Tool Setters				
Others (specify)				

Please list below the N.C. Machinist occupations you now have for which you would employ appropriately trained high school graduates and/or upgraded adults.

Occupation	Number of H. S. Trained Personnel Would Employ	Number of Upgraded Adults Would Employ
N.C. Programmer		
N.C. Machine Tool Operator		
N.C. Drafting		
Tool Setters		
Others (specify)		

If the State Department of Vocational-Technical Education became involved in N.C. training, would you want to utilize our facilities to upgrade your employees? Please check one of the following: yes____ no____. If yes, how many people per year?_____.

* N.C. = Numerical Control